

CLAIMS

1. A pipe having a spiral intended for checking and/or repair of a wall characterized in that the helical lead of a spiral is selected that doesn't exceed the crack critical length of a pipe with a weld.
2. A pipe according to claim 1 characterized in that it is provided with at least one additional spiral of similar direction with the first spiral.
3. A pipe according to claim 1 or claim 3 characterized in that the spiral is made in a wall in the form of a groove filled with vitreous mass.
4. A pipe according to claim 1 or claim 2 characterized in that the said spiral is made on the wall in the form of a convex layer of vitreous mass.
5. A method of pipeline check characterized in that the pipeline with a spiral is examined, characteristics of a wall are registered and its defects are detected with the aid of a conductive spiral arranged in the pipeline wall characterized in that the helical lead of the conductive spiral is selected that doesn't exceed the crack critical length of a welded pipeline.
6. A method according to claim 5 characterized in that at least one additional conductive spiral of the same direction as the said first spiral is arranged on the pipeline wall.
7. A method according to claim 5 or claim 6 characterized in that the conductive spiral is formed by knurling in the form of a groove and filled with vitreous mass.
8. A method according to claim 5 or claim 6 characterized in that the conductive spiral is arranged on the wall in the form of a convex layer of vitreous mass.
9. A method according to claim 5 or claim 6, or claim 7, or claim 8 characterized in that the distance to the defect is determined by the product of pipeline length and the relation of measuring pulses traveling times after and before defect appearance.
10. A method according to claim 5 or claim 6, or claim 7, or claim 8 characterized in that layers of varying deformability are formed, and the period of pipeline failure is determined by calculation on the basis of deformability of layers and wall and time of layers destruction.
11. A method of pipeline repair characterized in that the pressure is reduced in the pipeline cavity, and defective wall of the pipeline is restored characterized in that at least one spiral is formed in the pipeline with spiral helical lead selected not to exceed the crack critical length of a welded pipeline, this spiral is examined for determining a defect in the pipeline wall and, by the changes in measuring pulse vibrations the

pressure is reduced in the pipeline cavity, and the defective wall is recovered with the heat of vibrations transmitted by the conductive spiral into crack opening.

12. A method according to claim 11 characterized in that at least one additional conductive spiral is arranged on the pipeline wall of the same direction as in the first spiral.
13. A method according to claim 11 or claim 12 characterized in that the conductive spiral is formed by knurling in the form of a groove which is filled with vitreous mass.
14. A method according to claim 11 or claim 12 characterized in that the conductive spiral is arranged on the wall in the form of a convex layer of vitreous mass.
15. A method according to claim 11, or claim 12, or claim 13, or claim 14 characterized in that the heat flow into the crack opening is regulated by the power of transmitted vibrations.
16. A method according to claim 11, or claim 12, or claim 13, or claim 14 characterized in that the power of transmitted vibrations is increased in stages.
17. A device for realizing a method according to claim 11, or claim 12, or claim 13, or claim 14, or claim 15, or claim 16 containing sensor and monitor, series-connected power unit, dc-to-ac voltage converter, radiator and optoelectronic couple which is connected with the sensor in the form of a fiber-optic line and with the monitor first inlet, and the second inlet of the monitor is connected to the outlet of dc-to-ac voltage converter, characterized in that the fiber-optic line is made in the form of a layer of vitreous mass formed at least by a section of one conductive spiral of the pipeline, the distance between the spiral neighboring turns is selected not to exceed the crack critical length of a welded pipeline.
18. A device according to claim 17 characterized in that the radiator of the optoelectronic couple is made in the form of a laser.